

I CLAIM:

1. In a fluid/liquid storage tank with a sidewall and  
a floating roof floating atop the fluid/liquid, an improved  
5 grounding system comprising:

a reel connected to the sidewall; and  
said reel having a low impedance conductor connected  
to the floating roof.

10 2. The improvement of claim 1, wherein the reel  
further comprises a take up spool which keeps any slack out  
of the conductor and maintains a shortest fractional length.

15 3. The improvement of claim 2, wherein the take up  
spool further comprises a spring.

4. The improvement of claim 1, wherein the wire  
further comprises a bare braided copper cable.

20 5. The improvement of claim 1, wherein the reel  
further comprises a base having bolts secured to the tank  
wall.

25 6. The improvement of claim 4, wherein the bare  
braided copper cable further comprises a lug having a bolt  
secured to the floating roof.

7. The improvement of claim 6, wherein the impedance of the lug and bolt, plus the braided copper cable plus the reel is about one ohm or less.

5        8. A grounding system for a storage tank having a floating roof, said grounding system comprising:

        a wire having an end connected to the floating roof;  
        said wire having a second end wound around a spool  
            in a reel;

10        said reel having a grounded connection to a wall  
            segment of the tank; and  
        said wire having a low impedance.

15        9. The grounding system of claim 8, wherein the wire further comprises a flat braided copper conductor.

20        10. The grounding system of claim 9, wherein the spool further comprises a take up mechanism to minimize slack in the conductor.

        11. The grounding system of claim 10, wherein the total impedance of the system is about five ohms or less.

25        12. A grounding system for a tank with a floating roof, said grounding system comprising:

        means for taking slack out of a cable connected from  
            a floating roof to an upper segment of a tank  
            wall, and thereby maintaining a minimum length;

and

said cable having a low impedance.

13. The grounding system of claim 11, wherein the means  
5 of taking slack out further comprises a reel having a take  
up spool.

14. The grounding system of claim 13, wherein the take  
up spool further comprises a spring functioning to  
10 constantly pull up on the cable.

15. The grounding system of claim 13, wherein the cable  
further comprises a braided conductor.

16. The grounding system of claim 15, wherein the  
15 system has a total impedance of about five ohms or less.

17. The grounding system of claim 15, wherein the  
braided conductor has a bolt connection to the floating  
20 roof, and the reel has a base with a bolt connection to the  
tank wall.